UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
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OFFICE OF
THE REGIONAL ADMINISTRATOR

Colonel Anthony J. Hofmann
District Commander
U.S. Army Corps of Engineers, Kansas City District
635 Federal Building
601 East 12th Street
Kansas City, Missouri 64106-2824

RE: Final Environmental Impact Statement (DEIS) on Missouri River Commercial Dredging, Proposal to Extract Sand and Gravel from the Missouri River, U.S. Corps of Engineer's Section 10 and 404 Permits, Kansas City, Central Missouri and Greater St. Louis , Missouri, CEQ # 20110050

Dear Colonel Hofmann:

The U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Army Corps of Engineers' (Corps) Final Environmental Impact Statement (EIS) pursuant to our authorities under the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), Section 309 of the Clean Air Act, and Section 404 of the Clean Water Act. The Final EIS was assigned the CEQ number 20110050.

The Corps has identified an Environmentally Preferred Alternative (Corps Alternative) in the Final EIS which was not presented as a discrete alternative in the Draft EIS. The impacts of this 'hybrid' alternative are evaluated through analyses specific to the five separate reaches. An assessment of systemic impacts was not presented in the Final EIS. EPA's comments therefore track the reach analyses, but also restate and emphasize this Agency's view that a comprehensive sediment budget, supported by robust research and careful monitoring, is highly desirable for informed future decision-making about Missouri River dredging. In its review of the Final EIS, EPA recommends a conservative approach to regulating the dredging of sand and gravel in the lower Missouri River. Specifically, we recommend the Corps raise the dredging volumes in the St. Joseph segment by much less than is proposed in the Corps' Alternative; reduce the dredging volumes in the Kansas City segment as is described in the Corps' Alternative; apply dredging intensity limits across the entirety of each reach; prohibit cutter heads in the entire lower river;

limit permits to five years with no extensions; re-evaluate dredging quantities and intensity limits based on bed surveys and infrastructure surveys at the end of each permit cycle; initiate monitoring of tributaries for potential impacts related to dredging pressure in mainstem; and secure priority funding for a sediment budget for the Missouri River.

EPA provided ratings for all five alternatives identified in the Draft EIS, including the proposed action and a no action alternative, as the Corps did not identify a preferred alternative. EPA's ratings for each alternative and our recommendations regarding the need for a conservative approach to permitting dredging in the lower river are included in our September 7, 2010, letter on the Draft EIS. Those comments stressed that additional information is necessary to develop a sediment budget which would account for sediment transport, erosion and deposition in the lower Missouri River. EPA still believes that without a sediment budget, the Corps' development of a sustainable approach to sediment management in the river will remain elusive. Given the lack of precise information regarding what constitutes a sustainable load both throughout the lower Missouri River and within each segment, EPA recommended in our comments on the Draft EIS the issuance of permits based on the most conservative harvest of sand and gravel combined with a moratorium on dredging within the Kansas City reach and requirements to more evenly distribute dredging across all other reaches.

According to data presented in both the Draft and the Final EIS, the lower Missouri River has experienced significant bed degradation (i.e., lowering of the river bed) over the past ten years, with bed loss accelerating in the reach near Kansas City (which has lost approximately four feet since 1995). In addition, the great majority of the sand and gravel extracted from the lower Missouri River comes from three reaches near St. Charles, Jefferson City and Kansas City, which also coincides with the locations of sand plants and the greatest amount of river bed degradation. The Draft and the Final EIS indicate that, as a result of the stabilization of effects associated with operation of the dam system and the channel maintenance project, dredging is the primary continuing cause of bed degradation in areas of the lower river where bed loss is occurring.

The Corps Alternative as described in the Final EIS is a combination of dredging volumes selected from among Alternatives A, B and C specific to each of the five reaches and, if permitted as described, will allow for a combined 16% reduction in the total amount of dredging for the lower river from the current annual average. The Corps Alternative would allow for a 163% increase in the sand and gravel dredged from the St. Joseph segment (Alternative B), a 79% decrease in that dredged from the Kansas City segment (Alternative A) and a 40% increase in material removed from the Waverly segment (Alternative B) compared to existing dredging action. Permitted amounts within the Jefferson City and St. Charles segments would remain

largely the same as currently permitted (Alternative C). The Corps Alternative would permit the dredging of approximately 25% of the river's estimated Bed Load Material (BLM) within the St. Joseph segment, 10% of the BLM through Kansas City segment, 21% of the BLM through the Waverly segment, 44% of the BLM through the Jefferson City segment and 46% of the BLM through the St. Charles segment. The Final EIS identifies that dredging no more than approximately 10% of a segment's BLM should result in zero bed loss and otherwise support a sustainable level of dredging activity. In addition to the designation of a total dredging amount for each segment, the Corps Alternative also includes reach-scale target levels for dredging intensity in tons per mile per year which is intended to address acute bed loss historically measured near sand plant locations and provide more uniform dredging throughout each segment.

EPA still has concerns with some aspects of the Corps Alternative, and, by extension, these concerns would likely carry into the final selected alternative. The Final EIS does not assess the impacts to the entire lower river system, but instead focuses on the impacts of each alternative on each segment. A comprehensive system-wide assessment of the impacts associated with dredging almost 6 million tons of sand and gravel per year from the entire 500 mile reach was not conducted. Lacking a comprehensive sediment budget for the lower river , dredging of sand and gravel volumes significantly greater than 10% of the estimated BLM in segments the Corps believes are largely stable should be carefully evaluated. Absent that evaluation, permitted dredging could merely shift bed degradation from one segment to another. Provisions within the Corps Alternative which would implement limits on dredging intensity within each segment should be applied throughout each segment and not limited to reaches near existing sand plants to prevent creation of new 'hot spots' of bed loss elsewhere.

A sediment budget for the lower river must inform a broader understanding of both the dynamics of sediment transport and the response of river resources to reductions in available sediment bed load material. EPA continues to advocate for a conservative amount of dredging, particularly within those reaches with significant bed loss, while implementing a proper monitoring and assessment plan which would provide the basis for permitting more or less dredging for the next permit cycle. The proposed 163% increase in dredging quantity within the St. Joseph segment should be evaluated with respect to maintaining current segment bed stability and potential downstream effects, with particular emphasis on the Kansas City segment. With regard to the Kansas City segment, EPA believes that the amount of material proposed for dredging under the Corps Alternative is appropriate if combined with measures intended to minimize the potential bed loss in this significantly degraded segment, including: 1) the prohibition of the use of cutter heads in all three upstream segments which could compromise the integrity of consolidated sediment and 2) limiting dredging to less than 300,000 tons per five

mile reach per year throughout the segment, but particularly within River Miles 340 to 400. Further, restrictions in dredging volumes and intensity throughout all five segments support the creation of alternatives that are tempered with respect to the level of information available to quantify the risk in the entire lower river.

I appreciate the time and resources invested by the Corps, in general, and your staff, specifically, in developing a regulatory strategy to permitting sand and gravel dredging in a highly complex river environment under data-limited conditions. I urge you to consider these recommendations in your decision. If you have any questions regarding this letter or our recommendations, please contact me at (913) 551-7006, Dr. Ron Hammerschmidt, Director, Environmental Services Division, at (913) 551-7566, or Joe Cothern, NEPA Team Leader, at (913) 551-7148.

Sincerely,

Karl Brooks
Regional Administrator

cc: Cynthia Giles, EPA Headquarters, OECA
David Hibbs, U.S. Army Corps of Engineers, NWK
Cody Wheeler, U.S. Army Corps of Engineers, NWK
Henry Maddux, U.S. Fish and Wildlife Service, Lakewood, Colorado